Contents

Alexander, E. A., see Perrone, R. D., et al. 257

Angielski, S., see Gmaj, P., et al. 60

Atkins, J. L., Vurek, G. G.
Construction and filling of long-shank micro pH electrodes 203

Azma, F., see Laury, M.-C., et al. 171

Babka, M., see Thimm, F., et al. 286

Banks, D., see Harris, M. C., et al. 80

Bankir, L., see Bouby, N., et al. 96

Banno, H., see Imaizumi, Y., et al. 332

Bárány, M., see Kester, M., et al. 200

Barhanin, J., Ildefonse, M., Rougier, O., Sampaio, S. V., Giglio, J. R., Lazdunski, M.
Tityus γ toxin, a high affinity effector of the Na^+ channel in muscle, with a selectivity for channels in the surface membrane 22

Bass, A., Teisinger, J., Hnik, P., Macková, E. V., Vejsada, R., Eržen, I.
Lysosomal and energy enzyme activities in hypertrophied rat soleus muscle after denervation 188

Bateson, D., see Forester, G. V., et al. 208

Battaglini, P. P., Squatrito, S., Morandi, C., Galletti, C.
Microprocessor-based system for spike and eye-movement data acquisition and storage 194

Beck, F., see Galvan, M., et al. 274

Beijer, H. J. M., Maas, A. H. J., Charbon, G. A.
Pancreatic O_2 consumption and CO_2 output during secretin-induced, exocrine secretion from the pancreas in the anesthetized dog 318

Beijer, H. J. M., Maas, A. H. J., Charbon, G. A.
A vasopressin-induced decrease in pancreatic blood flow and in pancreatic exocrine secretion in the anesthetized dog 324

Béliveau, R., see Brunette, M. G., et al. 356

Belloni, F. L., Rubio, R., Berne, R. M.
Intracellular adenosine in isolated rat liver cells 106

Bengele, H. H., see Perrone, R. D., et al. 257

Benndorf, K., Nilius, B.
Temperature dependent properties of sodium inward current of frog atrial trabecles 329

Berne, R. M., see Belloni, F. L., et al. 106

Biber, J., see Gmaj, P., et al. 60

Blangé, T., see Hooff, H. van den 280

Bouby, N., Trinh-Trang-Tan, M.-M., Douté, M., Bankir, L.
Effects of osmolality and antidiuretic hormone on prostaglandin synthesis by renal papilla. Study in Brattleboro rats with diabetes insipidus 96

Boyle, R., Pompeiano, O.
Discharge activity of spindle afferents from the gastrocnemius-soleus muscle during head rotation in the decerebrate cat 140

Brunette, M. G., Chan, M., Maag, U., Béliveau, R.
Phosphate uptake by superficial and deep nephron brush border membranes. Effect of the dietary phosphate and parathyroid hormone 356

Burckhardt, G., see Stieger, B., et al. 178

Carcassi, A. M., Concu, A., Decandia, M., Onnis, M., Orani, G. P., Piras, M. B.
Effects of long-lasting stimulation of extensor muscle nerves on pulmonary ventilation in cats 409

Carpenter, D. O., see Haas, H. L., et al. 28

Carpi-Medina, P., Lindemann, B., González, E., Whittembury, G.
The continuous measurement of tubular volume changes in response to step changes in contraluminal osmolality 343

Carvalho, M., see Thimm, F., et al. 286

Cassano, G., Stieger, B., Murer, H.
Na/H- and Cl/OH-exchange in rat jejunal and rat proximal tubular brush border membrane vesicles. Studies with acridine orange 309

Chan, M., see Brunette, M. G., et al. 356

Charbon, G. A., see Beijer, H. J. M., et al. 318, 324

Cheung, D. W.
Neural regulation of electrical and mechanical activities in the rat tail artery 335

Christakos, C. N., Rost, I., Windhorst, U.
The use of frequency domain techniques in the study of signal transmission in skeletal muscle 100

Colquhoun, D., see Ogden, D. C., et al. 44

Concu, A., see Carcassi, A. M., et al. 409

Cormarèche-Leydier, M.
The effects of long warm and cold ambient exposures on food intake water intake and body weight in the capsaicin desensitized rat 183

Decandia, M., see Carcassi, A. M., et al. 409

DeFeo, T. T., see Morgan, J. P., et al. 338

Dörge, A., see Galvan, M., et al. 274

Donaldson, P. J., Leader, J. P.
Intracellular ionic activities in the EDL muscle of the mouse 166

Douté, M., see Bouby, N., et al. 96

Driessche, W., see Zeiske, W. 130

Erlij, D.
Vanadate stimulates the pumped movements of Na in skeletal muscle 413

Eržen, I., see Bass, A., et al. 188

Fasold, H., see Fritzsch, G., et al. 250

Fasold, H., see Ullrich, K. J., et al. 241

Favre, H., see Martin, B. 300

Ferguson, A. V., see Harris, M. C., et al. 80

Finger, W., Stettmeier, H.
Postsynaptic actions of ethanol and methanol in crayfish neuromuscular junctions 113

Fleischer, E., see Welk, E., et al. 66

Foley, D. H.
Diminished arterial smooth muscle response to adenosine during Na-K pump inhibition 88

Forester, G. V., Mortimer, A. J., Roy, O. Z., Bateson, D., Keon, W. J.
Effect of brief ultrasound exposure on post-tetanic potentiation in cardiac muscle 208

Fritzsch, G., Haase, W., Rumrich, G., Fasold, H., Ullrich, K. J.
A stopped flow capillary perfusion method to evaluate contraluminal transport parameters of methylsuccinate from interstitium into renal proximal tubular cells 250

Galletti, C., see Battaglini, P. P., et al. 194

Galvan, M., Dörge, A., Beck, F., Rick, R.
Intracellular electrolyte concentrations in rat sympathetic neurones measured with an electron microprobe 274

Geibel, J., see Rehwald, W., et al. 398

Geibel, J., Völkl, H., Lang, F.
A microelectrode for continuous recording of volume fluxes in isolated perfused tubule segments 388

Geibel, J., see Völkl, H., et al. 393

Giglio, J. R., see Barhanin, J., et al. 22

Gilpin, S. A., see Whitmore, I., et al. 40

Gintant, G. A., Hoffman, B. F.
Use-dependent block of cardiac sodium channels by quaternary derivatives of lidocaine 121

Gmaj, P., Biber, J., Angielski, S., Stange, G., Murer, H.
Intravesicular NAD has no effect on sodium-dependent phosphate transport in isolated renal brush border membrane vesicles 60

González, E., see Carpi-Medina, P., et al. 343

Gosling, J. A., see Whitmore, I., et al. 40

Gray, D. A., see Szczepańska-Sadowska, E., et al. 294

Gray, D., see Simon-Oppermann, C., et al. 151

Gray, P. T. A., see Ogden, D. C., et al. 44

Green, H. J., Klug, G. A., Reichmann, H., Seedorf, U., Wiehrer, W., Pette, D.
Exercise-induced fibre type transitions with regard to myosin, parvalbumin, and sarcoplasmic reticulum in muscles of the rat 432

Grosso, A., Sousa, R. C. de
High $[K^+]$ alters the stimulus-hydrosmotic response coupling in toad bladder 349

Gstrein, E., see Rehwald, W., et al. 398

Haas, H. L., Jefferys, J. G. R., Slater, N. T., Carpenter, D. O.
Modulation of low calcium induced field bursts in the hippocampus by monoamines and cholinomimetics 28

Haase, W., see Fritzsch, G., et al. 250

Handwerker, H. O., see Welk, E., et al. 66

Harris, M. C., Ferguson, A. V., Banks, D.
The afferent pathway for carotid body chemoreceptor input to the hypothalamic supraoptic nucleus in the rat 80

Hasselbach, W., see Su, J. Y. 14

Hierholzer, K., Schöneshöfer, M., Siebe, H., Tsiakiras, D., Weskamp, P.
Corticosteroid metabolism in isolated rat kidney in vitro. I. Formation of lipid soluble metabolites from corticosterone (B) in renal tissue from male rats 363

Hierholzer, K., see Siebe, H., et al. 372

Hierholzer, K., see Hoyer, G.-A., et al. 377

Hnik, P., see Bass, A., et al. 188

Hoffman, B. F., see Gintant, G. A. 121

Horikoshi, T., see Saeki, Y., et al. 235

Hooff, H. van den, Blangé, T.
Superfast tension transients from intact muscle fibres 280

Horowitz, M., Nadel, E. R.
Effect of plasma volume on thermoregulation in the dog 211

Horowicz, P., see Kotsias, B. A., et al. 262, 269

Hosono, T., see Kanosue, K., et al. 418

Hoyer, G.-A., Tsiakiras, D., Siebe, H., Hierholzer, K.
Corticosteroid metabolism in isolated rat kidney in vitro. III. Structure analysis of lipid soluble metabolites of corticosterone 377

Hu, S., see Rack, M., et al. 403

Ildefonse, M., see Barhanin, J., et al. 22

Imai, M., see Torikai, S. 306

Imaizumi, Y., Banno, H., Watanabe, M.
Anomalous stabilizing action of Ca on sphincter smooth muscle of the rat iris 332

Ishikawa, Y., see Kanosue, K., et al. 418

Ishikawa, Y., Nakayama, T., Kanosue, K., Matsumura, K.
Activation of central warm-sensitive neurons and the tail vasomotor response in rats during brain and scrotal thermal stimulation 222

Jefferys, J. G. R., see Haas, H. L., et al. 28

Kahn, A. M., Steplock, D., Weiman, E.
Effect of dibutyryl cyclic AMP on glucose transport in isolated brush border membrane vesicles from the rat kidney 109

Kakuta, Y.
Effects of ATP and related compounds on the Ca-induced Ca release mechanism of the *Xenopus* SR 72

Kanosue, K., see Ishikawa, Y., et al. 222

Kanosue, K., Nakayama, T., Ishikawa, Y., Hosono, T.
Threshold temperatures of diencephalic neurons responding to scrotal warming 418

Kato, C., see Saeki, Y., et al. 235

Keon, W. J., see Forester, G. V., et al. 208

Kester, M., Ledvora, R. F., Bárány, M.
The potentiation of arterial contraction with platelet activating factor 200

Kettenmann, H., Orkand, R. K., Lux, H. D.
Some properties of single potassium channels in cultured oligodendrocytes 215

Klöss, S., see Ullrich, K. J., et al. 241

Klug, G. A., see Green, H. J., et al. 432

Kotsias, B. A., Venosa, R. A., Horowicz, P.
Denervated frog skeletal muscle. Some electrical and mechanical properties 262

Kotsias, B. A., Venosa, R. A., Horowicz, P.
Caffeine contractures in denervated frog muscle 269

Krasner, B., Maughan, D.
The relationship between ATP hydrolysis and active force in compressed and swollen skinned muscle fibers of the rabbit 160

Kreuzer, F.
Preface to the 400th volume 1 (Erratum 341)

Lang, F., see Geibel, J., et al. 388

Lang, F., see Vökl, H., et al. 393

Laury, M.-C., Azma, F., Zizine, L., Portet, R.
Brown adipose tissue and thermogenesis in hypophysectomized rats in relation to temperature acclimation 171

Lazdunski, M., see Barhanin, J., et al. 22

Leader, J. P., see Donaldson, P. J. 166

Ledvora, R. F., see Kester, M., et al. 200

Lindemann, B., see Carpi-Medina, P., et al. 343

Ledsome, J. R., Wilson, N.
The relationship between plasma vasopressin concentration and urinary excretion during left atrial distension in anaesthetized dogs 381

Lux, H. D., see Kettenmann, H., et al. 215

Maag, U., see Brunette, M. G., et al. 356

Maas, A. H. J., see Beijer, H. J. M., et al. 318, 324

Macková, E. V., see Bass, A., et al. 188

Mallart, A.
Presynaptic currents in frog motor endings 8

Martin, B., Favre, H.
Natriuretic factor exerts a ouabain-like activity in the rat colon in vitro 300

Maughan, D., see Krasner, B. 160

Meier zu Verl, E., see Thimm, F., et al. 286

Mercer, J. B., Simon, E.
A comparison between total body thermosensitivity and local thermosensitivity in mammals and birds 228

Miyamoto, T., Ohizumi, Y., Washio, H., Yasumoto, Y.
Potent excitatory effect of maitotoxin on Ca channels in the insect skeletal muscle 439

Morandi, C., see Battaglini, P. P., et al. 194

Morgan, J. P., DeFeo, T. T., Morgan, K. G.
A chemical procedure for loading the calcium indicator acquorin into mammalian working myocardium 338

Morgan, K. G., see Morgan, J. P., et al. 338

Mortimer, A. J., see Forester, G. V., et al. 208

Murer, H., see Cassano, G., et al. 309

Murer, H., see Gmaj, P., et al. 60

Murer, H., see Stieger, B., et al. 178

Matsumura, K., see Ishikawa, Y., et al. 222

Nadel, E. R., see Horowitz, M. 211

Nakayama, T., see Ishikawa, Y., et al. 222

Nakayama, T., see Kanosue, K., et al. 418

Nilius, B., see Benndorf, K. 329

Noma, A., see Soejima, M. 424

Oberleithner, H., see Rehwald, W., et al. 398

Ogden, D. C., Gray, P. T. A., Colquhoun, D., Rang, H. P.
Kinetics of acetylcholine activated ion channels in chick ciliary ganglion neurones grown in tissue culture 44

Ohizumi, Y., see Miyamoto, T., et al. 439

Onnis, M., see Carcassi, A. M., et al. 409

Orani, G. P., see Carcassi, A. M., et al. 409

Orkand, R. K., see Kettenmann, H., et al. 215

Pearson, G. T., Petersen, O. H.
Nervous control of membrane conductance in mouse lacrimal acinar cells 51

Pelzer, D., Trube, G., Piper, H. M.
Low resting potentials in single isolated heart cells due to membrane damage by the recording microelectrode 197

Perrone, R. D., Alexander, E. A., Bengele, H. H., Schwartz, J. H.
Effect of aldosterone and dexamethasone pretreatment on sodium transport in rat distal colon in vitro 257

Petersen, O. H., see Pearson, G. T. 51

Pette, D., see Green, H. J., et al. 432

Petsche, U., see Welk, E., et al. 66

Piper, H. M., see Pelzer, D., et al. 197

Piras, M. B., see Carcassi, A. M., et al. 409

Pompeiano, O., see Boyle, R. 140

Portet, R., see Laury, M.-C., et al. 171

Rack, M., Hu, S., Rubly, N., Waschow, C.
Effects of chemical modification of amino and sulfhydryl groups on the voltage-clamped frog node of Ranvier 403

Rang, H. P., see Ogden, D. C., et al. 44

Rehwald, W., Geibel, J., Gstrein, E., Oberleithner, H.
A microelectrode for continuous monitoring of glucose concentration in isolated perfused tubule segments 398

Rehwald, W., see Völkl, H., et al. 393

Reichmann, H., see Green, H. J., et al. 432

Rick, R., see Galvan, M., et al. 274

Rost, I., see Christakos, C. N., et al. 100

Rougier, O., see Barhanin, J., et al. 22

Roy, O. Z., see Forester, G. V., et al. 208

Rubio, R., see Belloni, F. L., et al. 106

Rubly, N., see Rack, M., et al. 403

Rumrich, G., see Fritzsch, G., et al. 250

Rumrich, G., see Ullrich, K. J., et al. 241

Saeki, Y., Kato, C., Horikoshi, T., Yanagisawa, K.
Effects of Ba^{2+} on the mechanical properties of glycerinated heart muscle 235

Sampaio, S. V., see Barhanin, J., et al. 22

Scharrer, E., see Wolffram, S. 34

Schöneshöfer, M., see Hierholzer, K., et al. 363

Schwartz, J. H., see Perrone, R. D., et al. 257

Seedorf, U., see Green, H. J., et al. 432

Siebe, H., see Hierholzer, K., et al. 363

Siebe, H., see Hoyer, G.-A., et al. 377

Siebe, H., Tsiakiras, D., Hierholzer, K.
Corticosteroid metabolism in isolated rat kidney in vitro. II. Sex dependency of metabolism and formation of 11-dehydro-corticosterone 372

Simon, E., see Mercer, J. B. 228

Simon, E., see Simon-Oppermann, C., et al. 151

Simon, E., see Szczepańska-Sadowska, E., et al. 294

Simon-Oppermann, C., Gray, D., Szczepańska-Sadowska, E., Simon, E.
Blood volume changes and arginine vasotocin (AVT) blood concentration in conscious fresh water and salt water adapted ducks 151

Simon-Oppermann, C., see Szczepańska-Sadowska, E., et al. 294

Singh, J.
Inotropic responses of the isolated frog ventricle to serum 205

Slater, N. T., see Haas, H. L., et al. 28

Soejima, M., Noma, A.
Mode of regulation of the ACh-sensitive K-channel by the muscarinic receptor in rabbit atrial cells 424

Sousa, R. C. de, see Grosso, A. 349

Squatrito, S., see Battaglini, P. P., et al. 194

Stange, G., see Gmaj, P., et al. 60

Steplock, D., see Kahn, A. M., et al. 109

Stettmeier, H., see Finger, W. 113

Stieger, B., Burckhardt, G., Murer H.
Demonstration of sodium-dependent, electrogenic substrate transport in rat small intestinal brush border membrane vesicles by a cyanine dye 178

Stieger, B., see Cassano, G., et al. 309

Su, J. Y., Hasselbach, W.
Caffeine-induced calcium release from isolated sarcoplasmic reticulum of rabbit skeletal muscle 14

Szczepańska-Sadowska, E., Simon-Oppermann, C., Gray, D. A., Simon, E.
Plasma and cerebrospinal fluid vasopressin and osmolality in relation to thirst 294

Szczepańska-Sadowska, E., see Simon-Oppermann, C., et al. 151

Teisinger, J., see Bass, A., et al. 188

Thimm, F., Carvalho, M., Babka, M., Meier zu Verl, E.
Reflex increases in heart-rate induced by perfusing the hind leg of the rat with solutions containing lactic acid 286

Torikai, S., Imai, M.
Effects of solute concentration on vasopressin stimulated cyclic AMP generation in the rat medullary thick ascending limbs of Henle's loop 306

Trinh-Trang-Tan, M.-M., see Bouby, N., et al. 96

Trube, G., see Pelzer, D., et al. 197

Tsiakiras, D., see Hierholzer, K., et al. 363

Tsiakiras, D., see Siebe, H., et al. 372

Tsiakiras, D., see Hoyer, G.-A., et al. 337

Ullrich, K. J., Fasold, H., Rumrich, G., Klöss, S.
Secretion and contraluminal uptake of dicarboxylic acids in the proximal convolution of rat kidney 241

Ullrich, K. J., see Fritzsch, G., et al. 250

Vejsada, R., see Bass, A., et al. 188

Venosa, R. A., see Kotsias, B. A., et al. 262, 269

Völkl, H., Geibel, J., Rehwald, W., Lang, F.
A microelectrode for continuous monitoring of redox activity in isolated perfused tubule segments 393

Völkl, H., see Geibel, J., et al. 388

Vurek, G. G., see Atkins, J. L. 203

Waschow, C., see Rack, M., et al. 403

Washio, H., see Miyamoto, T., et al. 439

Watanabe, M., see Imaizumi, Y., et al. 332

Weiman, E., see Kahn, A. M., et al. 109

Welk, E., Fleischer, E., Petsche, U., Handwerker, H. O.
Afferent C-fibres in rats after neonatal capsaicin treatment 66

Weskamp, P., see Hierholzer, K., et al. 363

Whitmore, I., Gosling, J. A., Gilpin, S. A.
A comparison between the physiological and histochemical characterisation of urethral striated muscle in the guinea pig 40

Whittembury, G., see Carpi-Medina, P., et al. 343

Wiehrer, W., see Green, H. J., et al. 432

Wilson, N., see Ledsome, J. R. 381

Windhorst, U., see Christakos, C. N., et al. 100

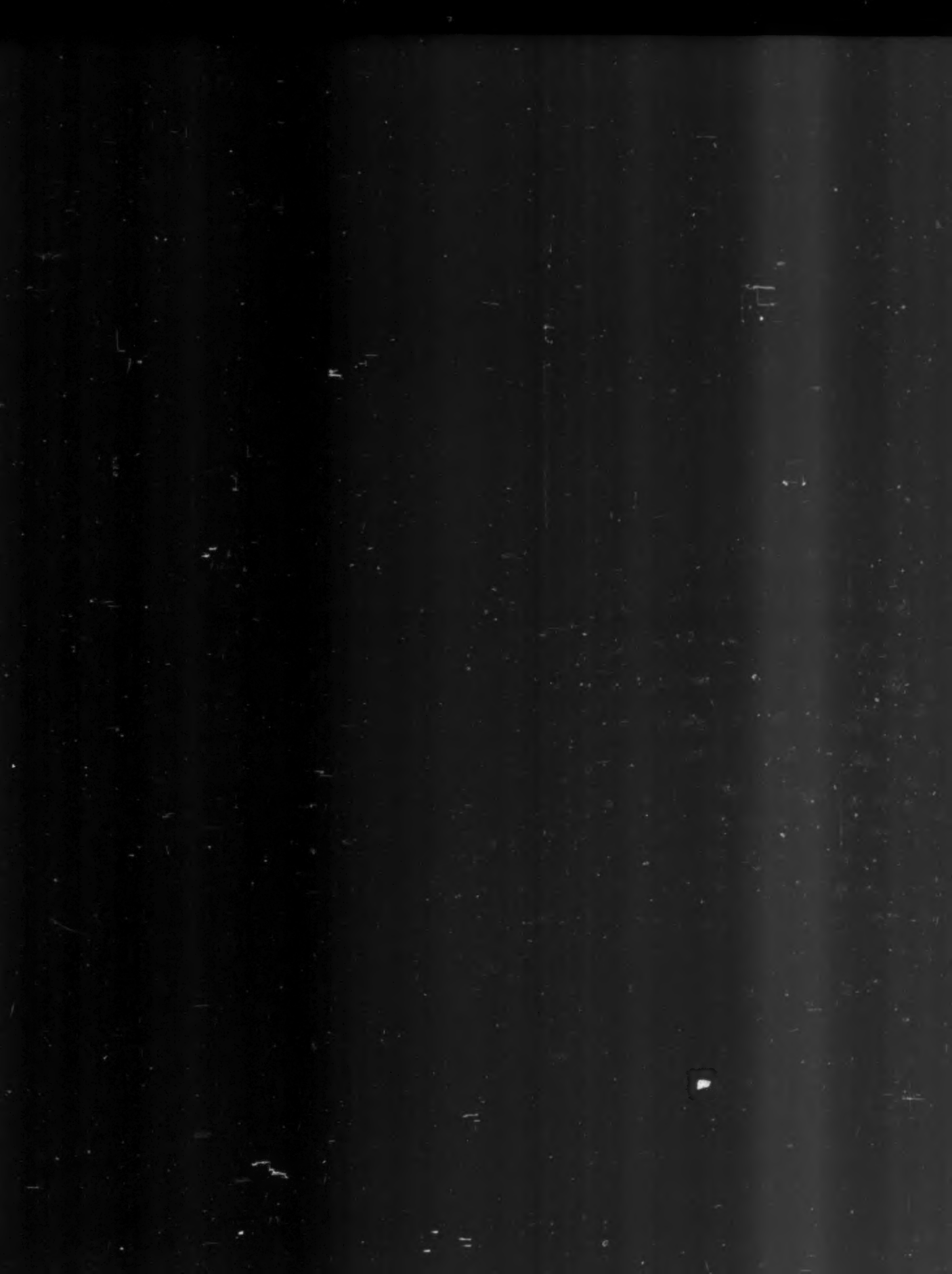
Wolffram, S., Scharrer, E.
Effect of feeding a high protein diet on amino acid uptake into rat intestinal brush border membrane vesicles 34

Yanagisawa, K., see Saeki, Y., et al. 235

Yasumoto, Y., see Miyamoto, T., et al. 439

Zeiske, W., Driessche, W.
The sensitivity of apical Na^+ permeability in frog skin to hypertonic stress 130

Zizine, L., see Laury, M.-C., et al. 171

Indexed in Current Contents

This volume includes a supplement with the abstracts of the 59th meeting (Spring meeting) of the Deutsche Physiologische Gesellschaft, held March 26–30, 1984, Dortmund R1–R72